

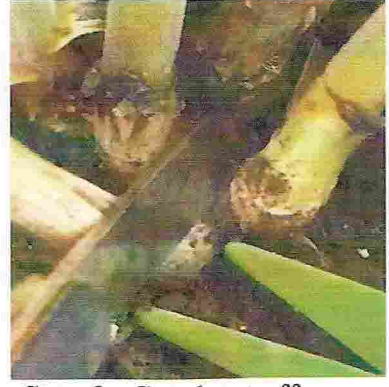
Vegetative Propagation of Delphiniums from Cuttings



Step 1. Select shoots.



Step 2. Reveal base.



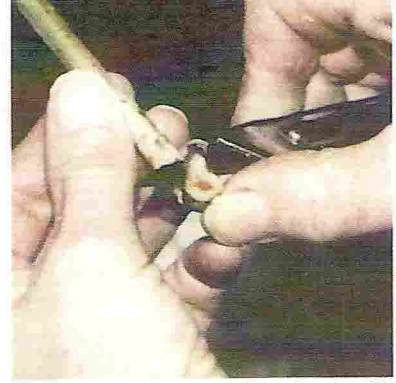
Step 3. Cut shoot off.



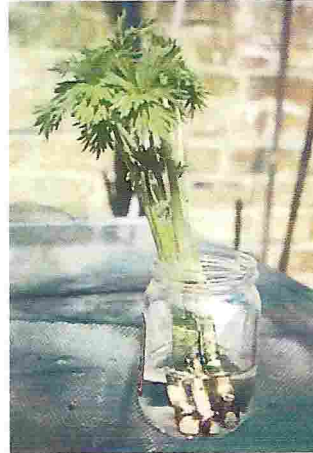
Step 4. Rinse shoot base.



Steps 5 & 6. Remnants of the old stem should be trimmed off.



Step 7A. Insert in Perlite.



Step 7B. Stand in water.



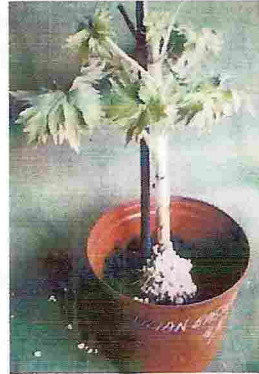
Step 8. Prevent wilting.



Step 9A. Cutting rooted.



Step 9B. Roots!



Step 10. Pot up.



Step 11. Ready to plant.

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Why take cuttings? Like most plants, delphiniums reproduce readily from seed but there is no guarantee that seedlings will resemble their parents. Named cultivars like 'Blue Nile', famed for brilliant blue florets with white eyes, or 'Bruce', with huge spikes of deep purple flowers, simply do not breed true from seed. All genuine plants of such cultivars are actually derived from a single original plant by vegetative propagation. In the garden, this can be done either by dividing the rootstock or by rooting cuttings taken from a mature delphinium. Cuttings have the advantage over divisions of an entirely new root system that allows them to grow with renewed vigour.

Taking cuttings. Selecting the right material and knowing where to detach it from the plant are crucial to success. Young shoots just starting to grow from the rootstock in spring make the best cuttings. Once a suitable shoot has been found, **Step 1**, clear away the soil or lift the plant from the ground to reveal the point where it is attached to the rootstock (crown), **Step 2**. The stem often has a bulbous swelling at the base and a constriction where it joins the crown. This basal region will become the crown of the new plant where buds for new stems are formed and it is essential that the shoot detached as a cutting should include it. To detach a shoot, use a clean, sharp knife and make the cut where the stem joins the crown or slightly into the old wood of the crown, **Step 3**.

Clean the cuttings. Rinse the base of the cuttings under a tap and use a brush to remove soil, **Step 4**. Carefully trim off any attached remnants of old crown wood, **Steps 5 & 6**. The base of the cutting should then be solid without a hole leading up to the hollow part of the stem and free from dark staining caused by rot.

Rooting Cuttings. Cuttings can be rooted in soil, sand, or any free draining potting compost but Perlite provides a readily available sterile rooting medium. Standing the shoots in a jar with their base immersed in water can also be used to root cuttings and this is the best method for rooting long shoots. Using Perlite, **Step 7A**, insert shoots about 3 cm deep into moist Perlite, then pour water down the stem of each cutting to establish capillary contact between the base of the stem and the Perlite. Pouring water down the stem also serves to fix the cutting securely in the rooting medium. Stand the pot in a saucer of water and top this up daily. For rooting in water, **Step 7B**, select a clean jar of suitable height for the cuttings, then add about 4 cm depth of water and stand the cuttings in the water. Label the pots and jars to identify the cultivars. Before inserting cuttings in the rooting medium, the base of the shoots can be dusted with hormone rooting powder to assist rooting and to control fungal diseases. Place the pots or jars of cuttings in good light. Sometimes long shoots may wilt at first and if this happens, cover the jar or pot for a few days with a plastic bag supported internally by a stick, **Step 8**.

Potting up rooted cuttings. As soon as roots begin to grow out of the base, cuttings start to grow. Typically, this takes from 5 weeks in February to 3 weeks in April as light levels and temperature increase. Wait until roots are well developed before potting up in compost. Cuttings in Perlite, will have made significant stem growth, **Step 9A**, while the extent of root growth is easily seen for cuttings in water, **Step 9B**. When potting up, place a split cane adjacent to the cutting to support the stem before filling the pot with compost, **Step 10**. Pushing canes into the pot after filling risks damaging the unseen base of the cutting. After potting up, pinch out the growing point at the top of the shoot to force the development of new stems from basal buds. Stand the potted cuttings outdoors and protect from slugs and snails.

Planting out. Cuttings can be planted out as soon as they are making active root growth in the compost with roots emerging from the base of the pot. It is perhaps better to wait for clear signs that new basal shoots are developing, indicated by new leaves emerging from the compost at the base of the stem, **Step 11**. This is a clear sign that a fully functional new plant has been generated.